

A Partnership for Sturgeon

o see a shortnose sturgeon is to understand the adage "a face only a mother could love." This fish, which can grow as large as 40 pounds and 3 feet long, has an elongated head and a body covered with rows of bony plates, called scutes. The sturgeon is a bottom feeder, with its mouth on the underside of its head, and moustache-like barbels — similar to a catfish's — with which it monitors its environment.

With its prehistoric appearance, this fish looks unlike any other found in the Connecticut River. That is exactly its appeal to researchers like Tom Savoy, senior fisheries biologist for the state Department of Environmental Protection. "The sturgeon, as a species, has been around for at least 200 million years — since the age of dinosaurs," Savoy said. In fact, in evolutionary terms, they are among the most primitive of all living

Tom is asking important questions about this federal-

ly endangered species, about which very little is known, at least in the Connecticut River. "We know from ... studies done between 1988 and 1993, that approximately 850 adult shortnose sturgeon are in the Connecticut River," Savoy said. But information on juveniles, which would provide a profile of the population, is surprisingly scant. Savoy's research this summer will focus on the population and distribution of juvenile fish in the river. The Nature Conservancy has joined forces with DEP, providing financial support for equipment and hiring a summer intern to assist with research.

The shortnose sturgeon is found along the Atlantic seaboard and

within the Connecticut River as far north as the Turners Falls Dam in Massachusetts. A separate, landlocked population exists north of Holyoke, Mass.

Sturgeon feeding preferences vary according to the river system they inhabit. Research shows that sturgeon feed in the main stem of the Connecticut River. Using their snouts and sensory barbels, they root along the bottom, "vacuuming" the mud. Sturgeon have a high-

ly refined electromechanical reception system, making them similar to sharks, which can sense extremely diluted concentrations of blood and minute electrical pulses. Sturgeon are also indiscriminate eaters, and actually consume large quantities of mud in search of mussels and small bottom fish. More research is needed to better understand this fish's food preferences and feeding areas.

Sturgeon mature slowly; females cannot spawn until 10 to 15 years of age. In the Connecticut River, spawning occurs from April through May.

Connecticut River, spawning occurs from April through May.

Successful spawning requires specific conditions. On the river bottom, a combination of gravel, rubble and large boulders, with little sand or silt, is needed. If the current is too fast, eggs may not adhere to the bottom; if it is too slow, eggs will clump and be susceptible to predation, fungus or respiratory problems. Water temperatures must be rising — as they typically are by late spring — but not

Fortunately, the shortnose sturgeon is both long-lived and produces millions of eggs. Their eggs are also believed to be part of the foodchain of the river ecosystem. (CONTINUED ON PAGE 3)



any members support The Nature Conservancy because our work is "science-based." They like that the Conservancy's decisions — from setting our general conservation objectives and approaches down to every step we take toward fulfilling them — are made according to the scientific data we have, and that we are constantly working to strengthen that foundation of knowledge.

I'd like to outline some of the ways scientific research affects the Conservancy's programs and strategies.

One of the most ambitious programs The Nature Conservancy has undertaken is helping to form an information network of biological diversity. Called Natural Heritage Programs domestically, and Conservation Data Centers abroad, this network is now established in all U.S. states and many other countries throughout the hemisphere. The heritage network is a vital component of the Conservancy's conservation strategy, pinpointing the areas of most crucial significance according to the occurrence and concentration of imperiled species and their habitats. The information in these computerized databases is gathered through years of painstaking field inventory work.

The inventory program continues to be the central source of information used in defining conservation priorities by the Conservancy, as well as proving useful for other conservation groups and governmental agencies. Here in Connecticut, the state Department of Environmental Protection's Natural Diversity Data Base is the primary source of information on the occurrence of rare plants and animals.

After this natural heritage program identifies key locations of rare species, the Conservancy evaluates the practical matters of protecting them. Chapter staff and our science advisors go to work creating a site plan, identifying potential threats to each site and detailing a long term conservation strategy.

An example might be a wetland site surrounded by upland forest where, if the owner of an uphill tract were to clear the

land, the eroded topsoil could degrade the wetland habitat. Each species and site has its own set of such potential threats and ecological processes that must be documented and considered in the development of a conservation plan.

The potential threats at a site dictate the priorities of protecting the land there. And, once the Conservancy owns land at a site, this preserve must be managed, and possibly enlarged, according to a preserve design based on available scientific data.

We have learned that in many circumstances our preserves are too small to contain the natural processes necessary to keep the species and natural communities functioning. Our success requires us not only to own and manage dedicated nature preserves, but also to work on the larger landscape scale to maintain the natural processes within complex ecological systems.

The future conservation outlook for the Conservancy embraces the developing concept of ecosystem-based management, which means that when we create a protected area we must not only take a broad ecological approach to managing the resources on the preserve, but we must also consider the surrounding land uses and ecological processes that affect the species and habitats found there. This is the basis of the Conservancy's international LAST GREAT PLACES initiative.

This new approach to preserve design has led us to apply the scientific data provided by the heritage network in new ways — including envisioning our conservation programs on much larger scales and engaging in new strategies that allow us to work with landowners and local communities in new and exciting ways. One example of this new landscape-scale conservation approach is the chapter's focus on protecting the Tidelands of the Connecticut River, one of the LAST GREAT PLACES.

To address the need for science-based preserve designs that fit into this broader approach, the Conservancy is increasing its support for research into the natural processes that influence the existence and health of plants, animals, and the natural communities in which they live. In addi-

tion to in-house research projects the Connecticut Chapter conducts on its own preserves, we are involved in collaborative efforts with government and university scientists. The Tidelands program is a focal point of much of this work.

The Connecticut Chapter also has two grant programs that provide funds for biological research. These are the H. Allen Mali Research Fund, providing assistance to university student projects, and the Tidal Wetlands Research Program, supporting studies along the Housatonic and Connecticut Rivers. Most of these research projects are investigations either of particular species or habitats, or of processes harmful to them.

The LAST GREAT PLACES program emerged from the recognition by scientists that the individual species approach to conservation is often inadequate, and that the focus should be expanded to the level of entire ecological systems — an untested approach. The only means of confidently pursuing this bold idea is through rigorous research — a process that never stops.



- LES COREY Vice President and Executive Director

On the cover: A young short-nose sturgeon (Acipenser brevirostrum) in captivity at the state Department of Environment Protection's Marine Fisheries Office in Old Lyme.

A view of the Eightmile River on the Burnham Brook Preserve in East Haddam.

The Nature Conservancy At Work Worldwide Total Transactions: 16,389 650 Total Acres 7,658,000 20,509 Protected: Total Acres Registered: 455,000 6,119 Total Acres Saved: 8,113,000 26,628 Members: 809,735 17,690 1,400 32 Corporate Associates:

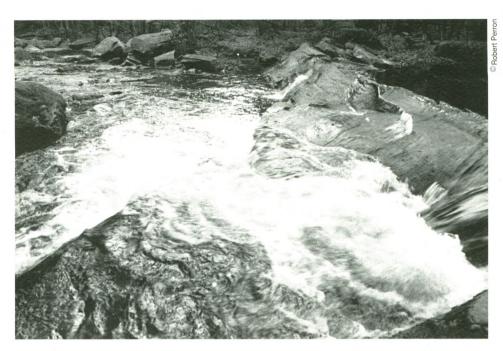
Sturgeon

(CONTINUED FROM PAGE I)

Although the shortnose sturgeon has few natural enemies, it is sensitive to overfishing and obstacles such as dams that prevent it from reaching its spawning grounds. Deteriorating water quality may also be responsible for a serious decline of this species.

Occasionally, sturgeon are hauled to shore on fishing lines. Because the fish is federally protected, every effort must be made to return it to the water unharmed. Tom Savoy would like to know about sightings and catches, as well as historical knowledge about the shortnose sturgeon in the Connecticut River. He can be reached at DEP Fisheries' Old Lyme office at (203) 434-6043.

- JUDY PRESTON



n April, the chapter attained its goal of raising \$533,000 to fund the acquisition and stewardship endowment of the 215-acre Chauncey Hand tract addition to the Burnham Brook Preserve in East Haddam. More than 150 supporters from all over Connecticut helped achieve this challenging goal.

The \$12,500 raised in excess of the \$521,000 acquisition costs for the property is an example of the chapter's commitment to raise stewardship funds for each piece of property acquired. "Ensuring that we can pay for research, property maintenance, and management of targeted species on a long-term basis for each of our preserves is an essential part of being responsible conservationists and good neighbors," said Chapter Director Leslie N. Corey Jr. "Its not always as easy to raise funds for stewardship as for land acquisition, but we feel it is just as important."

The fund raising campaign for the Hand project was kicked off with a \$40,000 challenge grant from Richard and Esther

Whalebone Cove

Goal: \$153,783

Raised: \$ 99,987

□ To go: \$ 53,886

Goodwin of East Haddam, who with Dr. John Ide established the preserve in 1960 with a donation of 46 acres. The Goodwins have since played an integral role in the expansion of the preserve, and recently contributed two tracts totalling 27.2 acres.

The Hand tract, an impressively wild and rugged parcel by itself, links together five other portions of the Burnham Brook preserve to form a contiguous protected area of 679 acres owned by the Conservancy with another 94 acres subject to easement. With the nearly contiguous 860acre Devil's Hopyard State Park and 13 acres owned or under easement to the East Haddam Land Trust, more than 1,600 acres of varied habitats, more than two miles along the Eight-Mile River, and more than a mile of Burnham Brook are protected. The preserve has been used as a study site for songbirds that winter in the tropics and require large, unbroken expanses of forest lands in North America to nest and breed.

— DAVID SUTHERLAND



Exciting Marsh Restoration at Saybrook Point

t the Fort Saybrook
Monument Park in Old
Saybrook, visitors can read
historical markers and learn about the
area's human history. Until recently,
a wooden boardwalk led through
towering stands of the invasive
common reed Phragmites australis.

Today, thanks to a full-scale marsh restoration project, this is a place to see what conservationists hope will be the rebirth of a diverse salt marsh. Now the ecological history of the park is as interesting as its human history.

In the spring of 1994, the state Department of Environmental Protection's Wetlands Restoration Unit — previously the mosquito control division — began the revitalization of this marsh.

Historically, the area was open salt marsh, but a constricting railroad dike and the accumulation of large logs at the inlet reduced the flow of water in and out of the marsh.

This, combined with the accumulation of sediment raising the marsh elevation, set the stage for the onslaught of *Phragmites*, a plant that invades areas that people have unwittingly elevated or restricted from tidal flow.

Over the years, this small marsh became a nearly solid stand of *Phragmites*. The elevated "view" from the park boardwalk was merely of a dense stand of the waving ten foot high flowering stalks — perhaps appropriate, as the word *Phragmites* is derived from the Greek word for fence.

From an ecological viewpoint, the predominance of any one species over all others is undesirable. In a healthy brackish salt marsh, for example, a diversity of plant species hosts equally diverse wildlife populations — from insects to great blue herons. A monoculture — the domination of an area by a single plant species, as in this case — reduces biological diversity.

Ironically, the Wetlands Restoration Unit uses heavy construction machinery of the kind historically used to fill wetlands. This machinery has been fitted with wide tracks that permit as little as two pounds of pressure per square inch on the marsh surface, less weight than a typical human foot!

At the Saybrook marsh, the Unit has cleared existing stands of

Phragmites and debris from channels and created a series of shallow ponds indirectly connected to the tidal inlets by shallow depressions, or swales. Monthly high (perigee) tides bring small fish into the pond via the swales. As an added benefit, the fish will keep potential mosquito populations in check as well as attract wading birds and other wildlife.

The ponds are isolated from the tidal inlet in order to prevent daily tidal drain-

ing. These ponds are refuges for small fish, and over time, through evaporation, will become increasingly saline, a deterrent to *Phragmites*. A small depression, about three feet deep, is created within each pond to provide cooler, deeper water for the fish.

Phragmites' first reaction to radical disturbance is to come back like gangbusters in response to the availability of nutrients formerly "locked up" in the muck soils of the marsh. At some point, herbicides may be employed to add an extra punch to control the reed. The primary controls, however, will be the new, lower elevations of the marsh and increased salinity levels.

At first the changes at Saybrook Point looked dramatic. What was dense, impenetrable Phragmites was converted to open marsh with ponds. Already this summer, the once towering Phragmites has been considerably stunted as a result of this effort. Over time, native marsh vegetation that has lain dormant for many years can be expected to return, particularly the Spartina grasses (Please see this issue's TIDELANDS OF THE CONNECTICUT RIVER supplement). As more diverse vegetation makes a comeback, wildlife will likely respond as well. Fish have already begun to attract wading birds to the site. This project has been made possible by the DEP Wetlands Restoration Unit in cooperation with U.S. Fish & Wildlife Service, DEP's Long Island Sound Program, the town of Old Saybrook and the Fort Saybrook Monument Park Association. The Nature Conservancy has closely monitored and recorded this project, and is planning to become more involved in larger scale restoration efforts along the Connecticut River. The Connecticut Chapter will also, through its scientific grants program, continue to fund further research about Phragmites in order to inform our restoration efforts and rationale.

This project is an opportunity to employ technology in a new and exciting way. No one knows for sure if this restoration will be successful. It is unlikely that *Phragmites* will be entirely eliminated. The chances are good that a greater diversity of marsh plants will succeed. It's the beginning of a new marsh at Saybrook Point.

Juliana Bar



Specially adapted machinery clears reeds at Fort Saybrook Monument Park in Old Saybrook. Note the extra-wide treads.

- JUDY PRESTON

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Nature Conservancy Magazine

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Courtesy of International Expeditions, Inc.

Winning photos will appear in the MAY/JUNE 1996 issue of NATURE CONSERVANCY Magazine.

To receive the Nature Conservancy Photo Contest Entry Form and a complete set of contest rules, please see The Nature Conservancy's forum on the America Online computer network (keyword: nature), or call 800-NEWS-TNC, or send a self-addressed, stamped envelope to: Photo Contest, The Nature Conservancy, 1815 North Lynn Street, Arlington, VA 22209.

Contest opens July 1, 1995. All entries must be postmarked no later than Nov. 1, 1995. Photo entries MUST be accompanied by an original entry form. Nature Conservancy staff, board members, and their immediate families are ineligible.

Schools Support Adopt-An-Acre

Every year, an acre of tropical habitat the size of Ohio (40,000 square miles) is destroyed in Latin America — and one species is lost to extinction every hour of every day.

If you would like to assist in helping secure the threatened tropical rainforests, please call 1-800-84-ADOPT for more information. With a gift of \$35 you can save one tropical rainforest acre as a gift to the earth!



Rain Forest Read-athon

Fourth graders at The Kings Highway Elementary School in Westport decorate school principal Angela Wormser-Reid's outfit, which was part of their reward for reading more than 1,000 books in one month; student Alex Cohen is giving her a recycled bracelet. The students sought sponsors for each book read, raising \$3,024.65, which they donated to The Nature Conservancy's Adopt An Acre Program for saving land in tropical rainforests. On Earth Day, the children also planted trees and picked up litter.

"The nice thing about the project was that it involved so many things," said one parent. "They read, they learned about the rainforest, they had to explain their concerns as they tried to get sponsors, and they did a good thing for their world."



Environmental Awareness

The Students for Environmental Awareness Club of Waterford High School donated \$1,000 it raised through a variety of activities to The Nature Conservancy in May. The club divided its donation between the Connecticut Chapter's Whalebone Cove Preserve in Hadlyme and the Latin America and Caribbean Division's Adopt-An-Acre Program, which protects rainforest land. The club raised the money over two school years through a variety of activities, including a drum-athon and sales of T-shirts and ribbons. Club President Christina Nadeau, Vice President Adam Morreale, Treasurer Evangeline Sargent, and faculty advisor Mike O'Connor (left to right) stand in front of a wildlife mural at the school.

South Windsor H.S.'s Four Year Record

For the fourth consecutive year, The Nature Conservancy has received a generous donation to the Adopt An Acre program from students at South Windsor High School.

The school's Class of 1998 has donated \$810 to protect 21.4 acres of rainforest in the Talamanca-Caribbean Biological Corridor in the Central American country of Costa Rica. This magnificent wildlife area connects the Atlantic Ocean coast to the mountainous Amistad Biosphere Reserve, which contains Costa Rica's largest intact forest. More than 90 percent of the country's known plant species and a majority of the country's animal species are found in this region. There are 113 species of mammal and 141 species of reptiles. Of the mammals there are six cat species — the margay and magnificent jaguar among them.

Over the past four years South Windsor High School students have donated gifts to the Adopt An Acre programs of Sierra de las Minas in Guatemala and Mbaracayu Nature Reserve in Paraguay. To date, students from this school have donated \$4,207! These funds will make a real difference in securing habitat to save many plants and animals from the threat of extinction.

— DOROTHY MILLEN

A group of chapter members went on a seven-day tour of the Central American country of Belize in February. Front row, left to right: Barbara Kashanski, Bob Jaeger, Chapter Vice President Evan S. Griswold, Pat Howe. Second row: Emily Fisher, Dorothy McClusky, Shirley Howe, Pat Jaeger, Peggy Kilgore, Chapter Director Leslie N. Corey Jr. Back row: Bonnie Corey, John Kashanski. The group was photographed at the Rio Bravo Conservation Area, which is the result of a cooperative effort involving the Programme for Belize, private land owners, the Belizean Government, Coca Cola Foods, and The Nature Conservancy. A total of 252,000 acrea of tropical forest, savannah, and wetlands, including



several significant archeological sites, will be protected and managed under this agreement. Rio Bravo is a portion of the Maya Biosphere Reserve, which extends into Guatemala and a portion of Mexico. Within the area is La Milpa, an area of Mayan ruins currently being excavated by researchers.

TIDELANDS OF THE CONNECTICUT RIVER



Tidal Marshes The Heart of a Last Great Place

ust as Connecticut is a melting pot of diverse cultures, the Tidelands of the Connecticut region is an an amalgam of wetlands, each contributing a distinctive influence to the larger ecological system. From the prairie-like salt meadows of Great Island to the sinuous freshwater meanders of Whalebone Creek, these marshes represent a classic array of estuarine wetlands.

The Connecticut River, now recognized as the most ecologically significant large-river system in the Northeast, serves as the common link, carrying nutrients and raw hydraulic energy from the Canadian border into Long Island Sound. Diverse, robust, and deceivingly dynamic, the river and its marshes make this Last Great Place worthy of the Connecticut Chapter's first ecosystem scale conservation project.

(CONTINUED ON NEXT PAGE)

Tidal Marshes

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Salt Marshes

Like those of an alpine summit or arid desert, the plants of a salt marsh are subjected to rigorous physical demands. Salt marshes such as Great Island (see photo page 1) must tolerate twice-daily flooding and drought, seasonal storms, and salt concentrations as high as 30 parts-per-thousand (ppt). Because relatively few plant species have adapted to these taxing conditions, the salt marsh flora is far less diverse than that of either brackish or freshwater marshes.

As with all tidal wetlands, the specific

plant communities of salt marshes are distinctly aligned according to how much time they spend under water. The "saline aquatic bed community," for example, is nearly always inundated and may be virtually devoid of vegetation. Yet with minute increases in elevation, the vegetation changes dramatically. The mid-tidal "saline low marsh" community is characterized by smooth cord grass (Spartina alterniflora), a stout, handsome plant that lines ditches and marsh borders. As the vanguard of the salt marsh, smooth cord grass is a front line colonizer of tidal flats, and its distribution is an accurate sign of the landward extent of mean high tide.

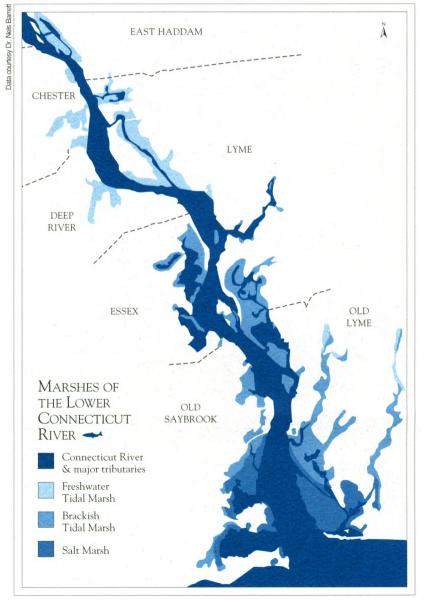
Further landward, salt hay (Spartina patens) is the dominant species of the grassland-like, upper-tidal "saline meadow community." As patches of salt hay are molded by tidal flows, they intergrade with spike grass (Distichlis spicata) and black grass (Juncus gerardii) to create the wavy, cowlicked appearance so distinctive of salt meadows. Interspersed within the meadows are salt "pannes," or shallow depressions that concentrate salts when pools of trapped seawater evaporate.

Salt pannes, which were much more prevalent prior to extensive ditching in the 1930's, support a distinctive assemblage of plants, including glasswort (Salicornia europea), sea lavender (Limonium nashii), and seaside gerardia (Suaeda maritima).

A "shrub thicket community" typically forms the upland border of the salt marsh system. Although the shrub thicket can be subjected to infrequent salt water flooding, the vegetation often reflects the degree of freshwater influence from groundwater. Characteristic plants include groundseltree (*Bacharis halimifolia*) and switchgrass (*Panicum virgatum*).

Brackish Marshes

Further upriver, the influence of freshwater increases, contributing to the formation of brackish marshes. The salinity — salt content — of brackish marshes can increase four-fold during the course of a year, ranging from less than five ppt during



spring flooding to nearly twenty ppt in late summer. Because of this variation, brackish marshes contain some plants found in salt marshes and others typical of freshwater, with the species composition at a particular site corresponding to its location in the river.

Brackish marsh types range on an elevational gradient from the aquatic bed community to the scrub-shrub community. Intermediate between these two are a midtidal "low-marsh" and upper-tidal "high marsh" that support bulrushes (*Scirpus spp.*), narrow-leaved cattail (*Typha angustifolia*), and the showy rose mallow (*Hibiscus palustris*). Some brackish marshes, such as 500-acre Lord Cove in Lyme, also support burgeoning stands of common reed (*Phragmites australis*), an invasive colonizer that displaces other native vegetation.

Freshwater Tidal Marshes

While many regional estuaries support extensive salt and brackish marshes, the numerous freshwater tidal marshes truly set the lower Connecticut River apart. From Selden Creek in Lyme to Round and Boggy Meadows in Cromwell, the freshwater wetlands of the Tidelands region are unrivaled in Southern New England. Although their salinity is affected by the volume of tidal influx, freshwater tidal marshes typically have a salinity less than 0.5 ppt.

Because of the more favorable conditions in these marshes, the diversity of their flora is the broadest of any marsh type, with more than 100 plant species commonly occurring; along the lower Connecticut River, plant diversity is often inversely proportionate to salinity.

(CONT. ON NEXT PAGE)



Lord Cove in Lyme, a brackish marsh.

On the cover:
Salt marshes such as the Great
Island Marshes of Old Lyme are
typically populated by smooth
cord grass (Spartina alterniflora) (foreground), salt hay
(Spartina patens), spike grass
(Distichlis spicata), and black
grass (Juncus gerardii) (in
background).

Tidal Marshes

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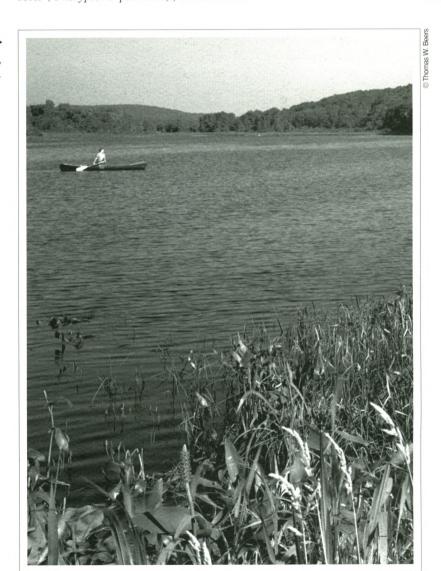
Visually, these marshes display dramatic seasonal changes, from March's mundane mud flats to June's blue bouquets of pickerelweed (Pontederia cordata) to August's majestic stands of wild rice (Zizania aquatica). Lower vegetation zones include an aquatic bed of coontail (Ceratophyllum demersum) and pondweeds (Potamogeton spp.), lower tidal bands of pickerelweed, wild rice, and bulrushes, and mid-tidal patches of arrow-arum (Peltandra virginica) and the aromatic sweetflag (Acorus calamus). The higher marsh is often fern-laden and includes the sensitive fern (Onoclea sensibilis), marsh fern (Thelypteris palustris), and cattail

(*Typha spp.*) and the shrub swamp that forms the upland border supports speckled alder (*Alnus rugosa*), swamp rose (*Rosa palustris*), silky dogwood (*Cornus ammomum*), and willows (*Salix spp.*).

NOTE: From the Land usually only provides the scientific (Latin) names of rare and endangered plants and animals. Because this article focuses marsh types and their varied inhabitants, we thought it would add interest for readers interested in botany to include all their scientific names.

— ANDY CUTKO

Chapman Pond in East Haddam, a freshwater marsh.



The Nature Conservancy®

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Thank you all for getting the Charter Oak Council off to a great start! Council members give \$1,000 or more annually in a one-time unrestricted gift to the chapter. They receive personal invitations to special events, updates from Conservancy President John C. Sawhill and Chapter Director Leslie N. Corey Jr., invitations to national Nature Conservancy trips, and other benefits.

Please consider joining the Charter Oak Council! To do so, send in your contribution with the form on page 11. Your entire gift will work for conservation here in Connecticut!

We have made every effort to make this list accurate. If you notice an error, please contact the Connecticut Chapter at (203) 344-0716, so we can correct our records.

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Ruth M. Berlin, a longtime friend and supporter of The Nature Conservancy, died at her home in Southport one March 15 at the age of 74. A philanthropist who gave to a wide variety of organizations, she was a loyal Acom member of the Connecticut Chapter, a supporter of the Devil's Den Preserve, and a generous donor to The Nature Conservancy's international LAST GREAT PLACES initiative. Mrs. Berlin will be greatly missed by her friends at The Nature Conservancy.





Broadcast journalist Morley Safer, a chapter Acorn, and chapter trustee Raymond A. Lamontagne enjoy the view of the Connecticut River during an event for the Connecticut Chapter. Henry Thorpe, vice president of Deep River Navigation Company, donated the use of the boat Silver Star for this event.

© photo courtesy Vicky and Don Wether

The Foundation of the Conservancy



New Employee

Vunay Talbot joined Connecticut Chapter staff in late April as the Development/Membership Assistant. A graduate of Teikyo Post University in Waterbury and The University of Hartford, Vunay previously worked in the Teikyo Post university housing office for more than three years. She is involved in all aspects of the chapter's gifts processing and manages the membership databases. Vunay also assists in the production of annual appeals, organization of donor events, and helps with other development projects. Originally from Plymouth, Mass., Vunay recently moved to Middletown with her cat Nikki.

Wish List

Chapter members have been very generous in lending and donating useful items to us. Any in-kind donation is tax-deductible. Some of our current needs are:

- Hip-chain distance measurer with 4,500 feet of line capacity
- Kevlar chain saw chaps, adjustable fit
- Kevlar arm guards
- Portable gas-powered winch or manual "come-along"
- Cellular phone with service for "in-the-field" emergencies

If you are interested in donating any of these items, please call Assistant Preserve Steward Marlene Kopcha at (203)344-0716.

olunteers are the foundation of The Nature Conservancy. They have played an important role in the Conservancy since its inception and participate on every level of the organization. The first Conservancy staff members were volunteers; today, our national board of governors and state chapter boards of trustees are composed of volunteers who help guide the focus of our work.

In Connecticut, we work closely with our volunteer board of trustees and committee members. Volunteers are also heavily involved in the stewardship of chapter preserves. Maintaining 55 preserves is a daunting task for our two preserve stewards, and would be impossible without the help of this loyal, hardworking group.

Volunteers come to The Nature Conservancy for an assortment of reasons. Most people volunteer because they want to support the Conservancy's mission, while some just love the outdoors, and believe that they should "give back" to the land they enjoy by taking care of it. They range from children who accompany their parents to a piping plover nesting site, to local college students who work in the office for a semester, to people who can only spare an occasional weekend. The work volunteers do is as varied as the volunteers themselves: trail work, office work, and independent projects like designing a bumper sticker or creating a display board are just a few examples of how volunteers work to further the Conservancy's mission.

No amount of time is too small; most volunteers participate only one or two times a year. It is easy, however, to see the cumulative effect of even one days' work from several volunteers. And it's not all work, either: Last September, the chapter held a picnic for volunteers at Rocky Neck State Park, complete with food, games, and prizes. We are looking forward to this year's picnic, and have begun planning for September.

If you would like to find out more about volunteer opportunities at the Connecticut Chapter, please call Jean Cox at (203) 344-0716.

- JEAN COX

VOLUNTEER PROFILE

he Nature Conservancy is just one of the organizations that benefits from the knowledge that Don and Vicky Wetherell of Storrs have gained through their professional careers and

many years of hiking, camping, gardening, wildlife observation and a pursuit of living lightly on the land.

Don, a retired biologist, is writing a series of fact sheets about wetland plants for the chapter's Tidelands of the Connecticut River program. He also regularly contributes articles on environmentally sound gardening to *The Day* in New London.

Vicky, a retired teacher, wrote "Natural History Outings on Connecticut's Traprock Ridges," a 60-page book that has encouraged many people to get a much closer and more knowledgeable look at central Connecticut's

most prominent natural landmarks. Vicky recently helped the Land Conservation Coalition for Connecticut organize a successful day-long workshop on the importance of traprock ridges, which are among the most

prominent natural features of central Connecticut. She has also worked as an interpretive naturalist at state parks and summer camps.

Together, Don and Vicky teach wetlands workshops for the state Department of Environmental Protection's Community Environmental Education Program. They also lead outings and programs for several environmental organi-

zations, and both serve on town committees concerned with open space preservation and recreational use of public land.





General Re Supports Devil's Den



n an important display of corporate leadership, General Re Corporation of Stamford donated \$25,000 to the Devil's Den Preserve in Weston early this spring, and pledged another \$25,000 for next year.

"General Re is proud to support the fine work of and become a partner with the Connecticut Chapter of the Conservancy and the Devil's Den," said Richard W. Manz, General Re's Assistant Treasurer. General Re provides reinsurance and related services throughout the world.

"The participation of General Re is an excellent example of this kind of partnership and commitment to improving the environment and quality of life in Connecticut," said Chapter Director Leslie N. Corey Jr. "All of us in Connecticut are grateful for their support and vision."

The 1,720 acre Devil's Den Preserve in Weston is the Connecticut Chapter's largest and most frequently visited preserve, last year welcoming more than 40,000 visitors. Just 35 miles from the Bronx, the Den is the largest tract of protected land in densely developed Fairfield County.

This staffed preserve offers many guided and individual walks throughout the year, including educational programs for both adults and children (please see Calendar, page 9). Visitors may walk the preserve's more than 20 miles of trails at any time between dawn and dusk.

- MARIAN MOORE

At a luncheon for The Nature Conservancy Connecticut Chapter's Corporate Associates hosted by General Re of Stamford on June 27, Nature Conservancy President John C. Sawhill (left) talks with Corporate Advisory Board Chairman Richard H. Booth, executive vice president of Phoenix Home Life, and Roberta Barbieri, a senior environmental engineer at Pitney Bowes.

For more information on...

...work parties, please call Marlene Kopcha or David Gumbart at (203) 344-0716. Some work parties are for a limited number of participants.

...Natural History Walks, please call Jean Cox at (203) 344-0716

...Katharine Ordway or Devil's Den Preserves in Weston, please call (203) 226-4991.

...Sunny Valley Preserve in New Milford and Bridgewater, please call (203) 355-3716.

We Walk-A-Wewaka
Sunny Valley Preserve
New Milford
Sunday, Aug. 27
1 p.m. to 4 p.m.
John Markelon, New Milford High School ecology teacher, will guide this walk through Wewaka Brook Farm and Natural Area. Wewaka contains a 330-acre mix of fields and woodlands.

M Natural History Walk Cathedral Pines Preserve Cornwall Saturday, Sept. 9 10 a.m. to noon Limit: 15 people.

X Work Party Chapman Pond Preserve East Haddam Wednesday, Sept. 20 10 a.m. to 3 p.m. Help us remove Japanese stilt grass.

Symposium
Essex Town Hall
Friday, Sept. 29
8:30 a.m. to 12:15 p.m.
Dr. William Niering, professor of botany at
Connecticut College in New London, will
discuss energy conservation and naturalistic
landscaping. Forester Stephen Broderick of
the University of Connecticut Cooperative
Extension System will discuss the Chester
Creek mapping project he worked on with
the Conservancy and the state Department
of Environmental Protection.

Annual Rockfall Foundation

M Open Farm Day Sunny Valley Preserve New Milford. Saturday, Oct. 7 10 a.m. to 3 p.m.

In cooperation with Bill and Bonnie Weed, the preserve invites its friends and neighbors to pet a cow, tour the barn, inspect equipment, pick a pumpkin or take a hay ride. The visit is free. Pumpkins are for sale and hay rides are 50 cents. Bring a picnic, and enjoy the beauty of Sunny Valley.

➤ In Search of Fall Fliers Sunny Valley Preserve New Milford. Sunday, Oct. 15 8 a.m. to 11 a.m.

Angela Dimmitt, experienced birder and member of the Western Connecticut Bird Club, will lead this walk. See a wide variety of sparrows and hawks on their migration route south through the Housatonic Valley. Possible highlights include spotting the endangered peregrin falcon (*Falco peregrinus*) or black vulture (*Coragyps atratus*), an uncommon sighting in Connecticut. (New Milford trails)

Natural History Walk Ayers Gap Preserve, Franklin Saturday, Oct. 21 10 a.m. to noon Limit: 20 people

☆ Work Party
Buttermilk Falls Preserve
Plymouth
Friday, Oct. 27, 10 a.m. to 3 p.m.
Come help us beautify this preserve!

"Urban Growth and Biodiversity:
Can They Coexist?"
A seminar hosted by the Westchester County Environmental Planning Department
Texaco, Inc., White Plains, N.Y.
Friday, Oct. 27
9 a.m. to noon
Chapter Executive Director Leslie N. Corey
Jr. will speak on the Conservancy's efforts to protect biological diversity. For more information please call Robert Doscher at (914) 285-4422.

35th Annual Meeting on October 14 at

Saturday, Oct. 14, 1995 New Milford, Connecticut

9 A.M. Registration & Refreshments

IO A.M. Connecticut Chapter Annual Business Meeting Anthony P. Grassi, Chairman

The Year in Review Leslie N. Corey Jr., *Director*

II A.M. Awards Ceremony

II:15 A.M.
Guest Speaker
Juan Carlos Navarro
Executive Director of ANCON
"Panama's Darien National
Park: Progress and Challenge
in One of the Americas'
Wildest Places"

12:30 Р.М. Lunch

1:30 P.M. Field Trips Please join The Nature Conservancy Connecticut Chapter trustees, staff, members, and special guests for an autumn day at our Sunny Valley Preserve in New Milford. A dynamic lecturer, Juan Carlos Navarro, will speak on conservation challenges in Panama. Following the annual business meeting, award ceremony and lunch, we will depart for an afternoon of informative field trips. Please join us!

Guest Speaker JUAN CARLOS NAVARRO

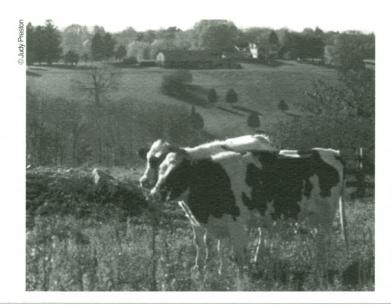
Juan Carlos Navarro is the executive director of Asociación Nacional para la Conservación de la Naturaleza (ANCON), Panama's largest non-profit conservation organization, and a vital partner in The Nature Conservancy's effort to preserve tropical ecological systems.

In the decade since ANCON's founding in 1985, Navarro has led the organization to the forefront of natural resource protection in Latin America. ANCON works to acquire critical additions to Panama's national parks, manages parks that already exist, and initiates sustainable economic development projects in the communities that surround the parks. Their efforts protect not only Panama's phenomenal array of plant and animal species, but also two indigenous groups of people, the Cuna and Embera tribes, which have lived in the wild Darien region on Panama's Colombian border for thousands of years.

FIELD TRIP EXCURSIONS!

Field trip space is limited, so please register early. Trips last between one and two hours, and will take place rain or shine.

- M Sunny Valley Farm Nature Hike Preserve Manager Wayne Woodard and Preserve Administrator Margaret McCauley will lead alternate halves of this hike. One half will focus on the preserve's cattle and pumpkin growing operations and the other half will focus on agricultural and environmental land use compatibility. (90 minute, moderately difficult hike.)
- ← Canoe Lake Lillinonah Guided by Tidelands Program Director Dr. Juliana Barrett and Land Protection Assistant Martha Rice, canoeists will paddle scenic Lake Lillinonah, which borders the town of Bridgewater. The canoe trip will pass several Sunny Valley Preserve sites and provide a splendid view of the fall foliage. (90 minute canoe trip.) Please bring your own canoe and flotation devices for every member of your party. 12-canoe limit.
- Iron Ore Hill Ravine Trail Enjoy an autumn afternoon natural history walk led by Stewardship Ecologist Andy Cutko, focusing on the flora and fauna around Iron Ore Hill. (One hour, moderately difficult hike.)
- Rocky Hill Field and Forest two groups (please see page 11) Hike will loop around autumn fields and woods to a scenic lookout. Guides will discuss the history of Sunny Valley Farm. The hike will end with a visit to the final resting place of George Pratt, who donated the farm to the Conservancy. If weather is fair, bring crackers and juice for a relaxing moment near a pond at the hike's finish. (90 minute, moderately difficult hike with some steep slopes.)



Sunny Valley Preserve



With Director of Science and Stewardship Judy Preston and Preserve Steward David Gumbart

Rocky Hill Hike #2
With Sunny Valley Preserve Director
Chris Wood.

Thawk Walk at Wewaka
Join veteran birder and stalwart
Conservancy volunteer Art Titus to search
for hawks and other autumn migrating
birds. The hike will pass by excellent vantage points to enjoy the fall scenery.
(1 hour leisurely hike.)

NOMINATIONS TO THE CHAPTER BOARD OF TRUSTEES



Mary M. Ackerly, Norfolk Partner in charge of the Litchfield office of law firm Gager & Henry since 1994. She was an honors graduate of Barnard College and Yale Law School. She is a member and past president of the Norfolk Land Trust and director of the Norfolk Library.



Dr. Robert A. Askins, New London Professor of zoology at Connecticut College in New London. Dr. Askins holds a Bachelor's degree from the University of Michigan

and graduate degrees from the University of Minnesota. His current research focuses on the survival of migrant songbirds.



Eunice S. Groark, Hartford Lieutenant Governor of Connecticut from 1991 to 1995. Eunice Groark served as Corporation Counsel for Hartford from 1987 to 1990. She

is a graduate of Bryn Mawr College and of the University of Connecticut Law School.

NOMINATED AS OFFICERS FOR ONE-YEAR TERMS FOR ELECTION BY THE BOARD OF TRUSTEES

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1/2

Please reply by Friday, Sep Complete and return to T	he Nature Conservancy, 55 High Street, M	iddletown, CT 06457
Name of each member att	ending (for nametags)	
TREET ADDRESS	CITY	ZIP
OAY PHONE EVENING PH	ONE	
Any member of the Connec appreciate the support of our	JAL BUSINESS MEETING ONLY	neeting free of charge. We
expenses of hosting this meet		
Number attending	_ @\$25 each corning refreshments and field trips.	

Field Trip choice

Please choose one. To guarantee a high quality experience on all field trips, numbers are limited and registration is on a first-come, first-served basis. If your chosen trip is full, we will attempt to accommodate you by scheduling another. Please indicate number of individuals on each trip:

Sunny Valley Farm and Nature Hike
Canoe Lake Lillinonah
Iron Ore Hill Ravine Trail
Rocky Hill Field and Forest #1
Rocky Hill Field and Forest #2
Hawk walk at Wewaka
No field trip desired

Meeting and hikes will take place rain or shine. If there is extreme weather, please call either the Sunny Valley Preserve at (203) 355-3716 or the chapter office at (203) 344-0716.

Directions will be sent upon registration. Please, no pets.
Please make checks payable to The Nature Conservancy. We look forward to seeing you!

The Nature Conservancy

Connecticut Chapter 55 High Street Middletown, CT 06457-3788 (203) 344-0716 FAX (203) 344-1334

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From The Land 🗩

Merrill Lynch

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Research Programs Flourish

he chapter's research agenda this year is the most ambitious ever, with active participation in nearly 20 projects. Research is conducted by chapter staff and interns, recipients of H. Allen Mali and Tidal Wetlands Conservation grants, and public and private cooperators. Selected projects are described below.

Three projects examine different aspects of the invasive common reed (Phragmites australis). Dr. Randy Chambers of Fairfield University is studying factors presumed to affect the growth of Phragmites in the Housatonic River. Lori Benoit, a graduate student at Connecticut College and former chapter intern, is visiting 30 coastal marshes in an attempt to discern the impacts of common reed on bird diversity. Dr. Nels Barrett and Sandy Prisloe are using a Global Positioning System and Geographic Information System to map the expansion of reed colonies at seventeen core Tidelands sites.

Thanks to the Barbour Foundation, the chapter has funded Doug Smith of the University of Massachusetts and Dr. Eileen Jokinen of the University of Connecticut to conduct a mollusk (snail and mussel) inventory of the Tidelands area. George Edmonds, a graduate student at University of Connecticut, is conducting a more intensive aquatic invertebrate survey of the Lieutenant River. Aquatic invertebrates — particularly freshwater mollusks — are considered important biological indicators of ecosystem health.

Kathleen McCauley, a graduate student at the University of New Hampshire, is conducting a vegetation survey of a biologically rich site in Southbury, and UConn Ph.D. candidate Georgianne Copley is embarking on a three year study of the globally rare featherfoil (Hottonia inflata).

The chapter has joined forces with the U.S. Fish and Wildlife Service, the state Department of Environmental Protection, and Connecticut Audubon Coastal Center to fund a multi-year habitat restoration project at the Stewart B. McKinney Wildlife Refuge in Milford. A key goal of the project is to restore a portion of the refuge for federally endangered piping plovers (*Charadrius melodus*).

For a complete list of the chapter's current research initiatives please contact Stewardship Ecologist Andy Cutko at 344-0716.



From The Land
The Nature Conservancy
Connecticut Chapter
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